

Matrix Technical Support Mailer – 26 **COSEC Integrate (Export to MS SQL)**

Dear Friends,

This technical mailer will help you to understand the *COSEC Integration Application* which is available in COSEC V03R03 and onwards.

This is a powerful tool to integrate two different databases in real time (Automatic) as well as manually. One can install this application from COSEC Installation Setup.

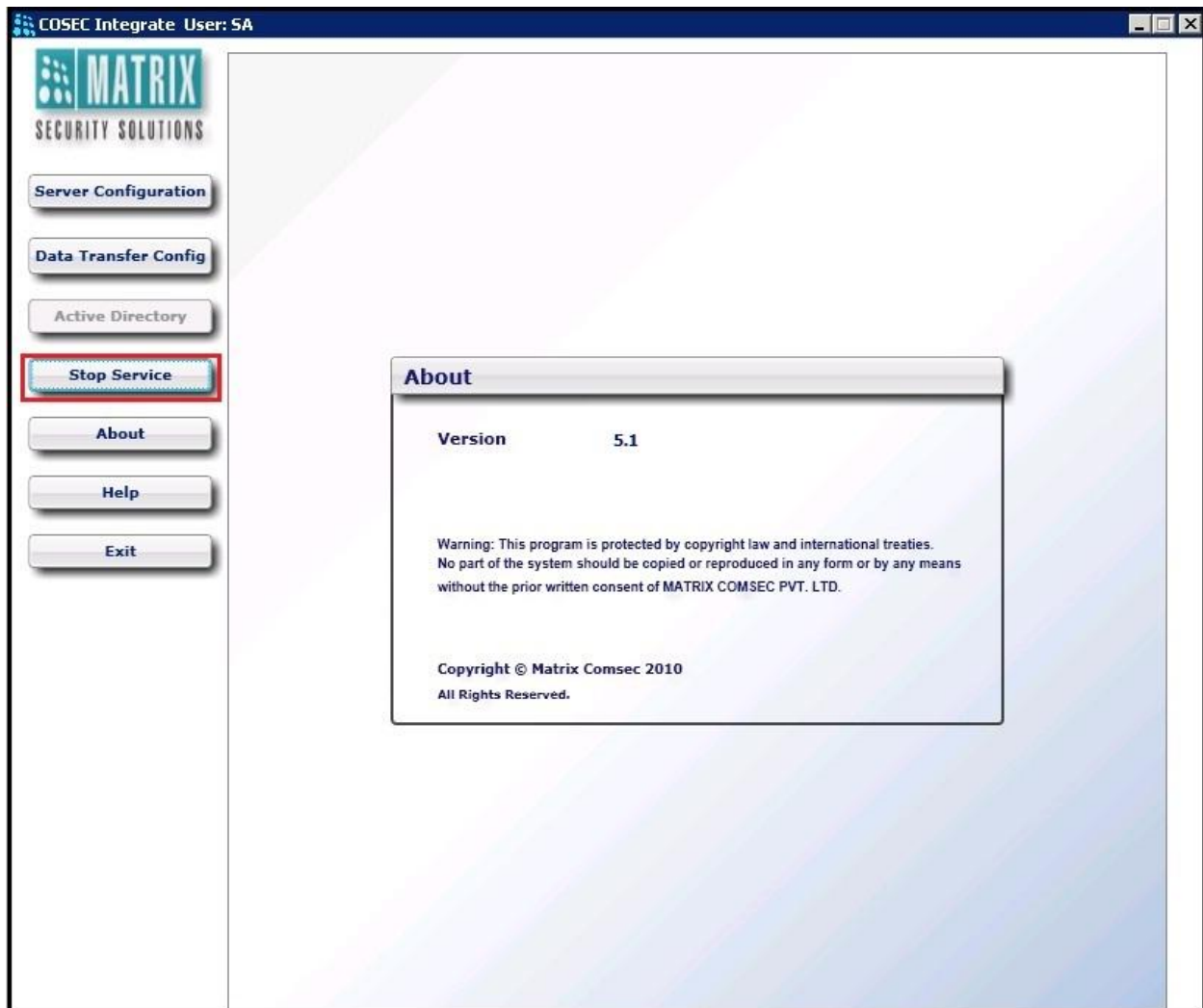
Below mentioned are the steps for COSEC Integrate configurations.

Step 1: Open the COSEC Integrate application installed in your PC. You will find the following login page:



Enter the password for logging in to the application. For the first time users, need to set the password for using COSEC Integrate application. One should make sure that COSEC Integrate uses separate and independent password of its own, and that's why it needs to be created.

Step 2: After logging in one needs to “stop” the service to change/enter the server configuration settings. By default the service is “started”.

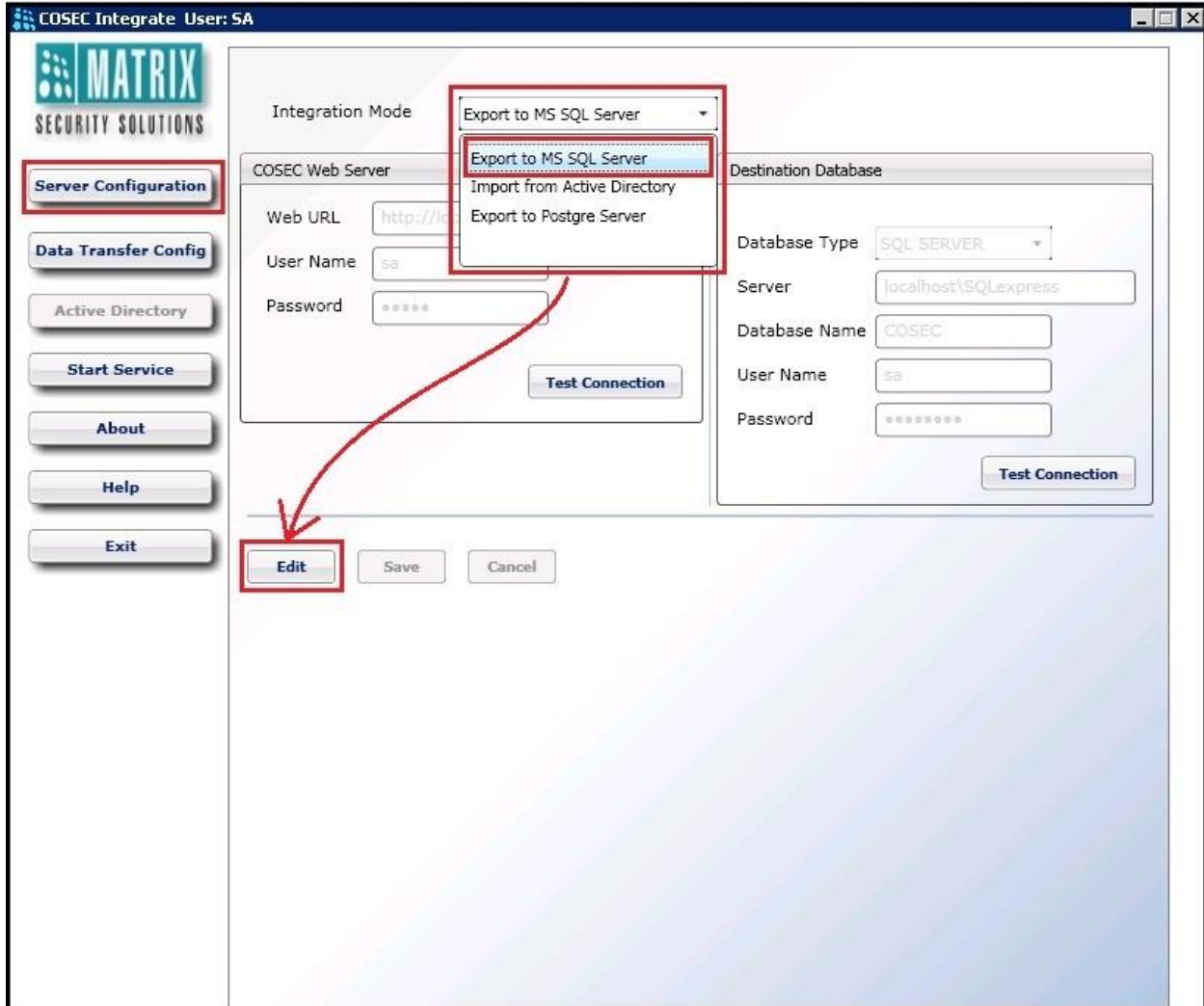


Step 3: Configuration part is essential to connect two different databases running on the same or different PCs.

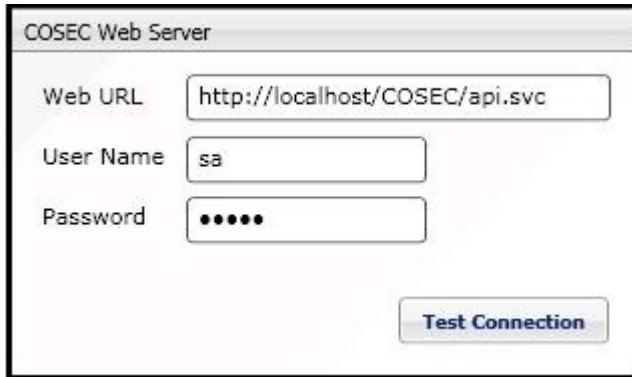
One needs to provide the login credentials, each for the source as well as the destination database for its successful connection.

For this one needs to select the integration mode which means one can integrate COSEC SQL database with any one of the following database:

- 1.) Export to MS SQL Server
- 2.) Import from Active Directory
- 3.) Export to Postgre Server



Step 4: Select “Export to MS SQL” and then edit it. One can find the following configurations to be specified.



COSEC Web Server

Web URL

User Name

Password

One needs to provide here the credentials of COSEC Web URL, Username (sa) and Password (set for COSEC Web). After specifying all the parameters correctly, one can verify it by Testing its Connection.



COSEC Web Server Connection Tested Successfully

Integration Mode

COSEC Web Server

Web URL

User Name

Password

Destination Database

Database Type

Server

Database Name

User Name

Password

Similarly one needs to provide the parameters for the Destination Database.

The screenshot shows a window titled "Destination Database" with the following fields and values:

- Database Type: SQL SERVER (dropdown menu)
- Server: localhost\SQLEXPRESS (text input)
- Database Name: COSEC (text input)
- User Name: sa (text input)
- Password: [REDACTED] (password input)

A "Test Connection" button is located at the bottom right of the window.

Here one can find that the values provided are Database Type i.e. SQL Server. Username (login user for SQL) and Password (set for the SQL Database server. In case SQL is installed via COSEC Installer, the default password will be “matrix_1”).

One can again verify the connectivity with destination table by testing its connection.

The screenshot shows a window titled "Database Connection Tested Successfully" with the following fields and values:

- Integration Mode: Export to MS SQL Server (dropdown menu)
- COSEC Web Server section:
 - Web URL: http://localhost/COSEC/api.svc (text input)
 - User Name: sa (text input)
 - Password: [REDACTED] (password input)
- Destination Database section:
 - Database Type: SQL SERVER (dropdown menu)
 - Server: localhost\SQLEXPRESS (text input)
 - Database Name: COSEC (text input)
 - User Name: sa (text input)
 - Password: [REDACTED] (password input)

There are "Test Connection" buttons in both the COSEC Web Server and Destination Database sections. The "Test Connection" button in the Destination Database section is highlighted with a red box.

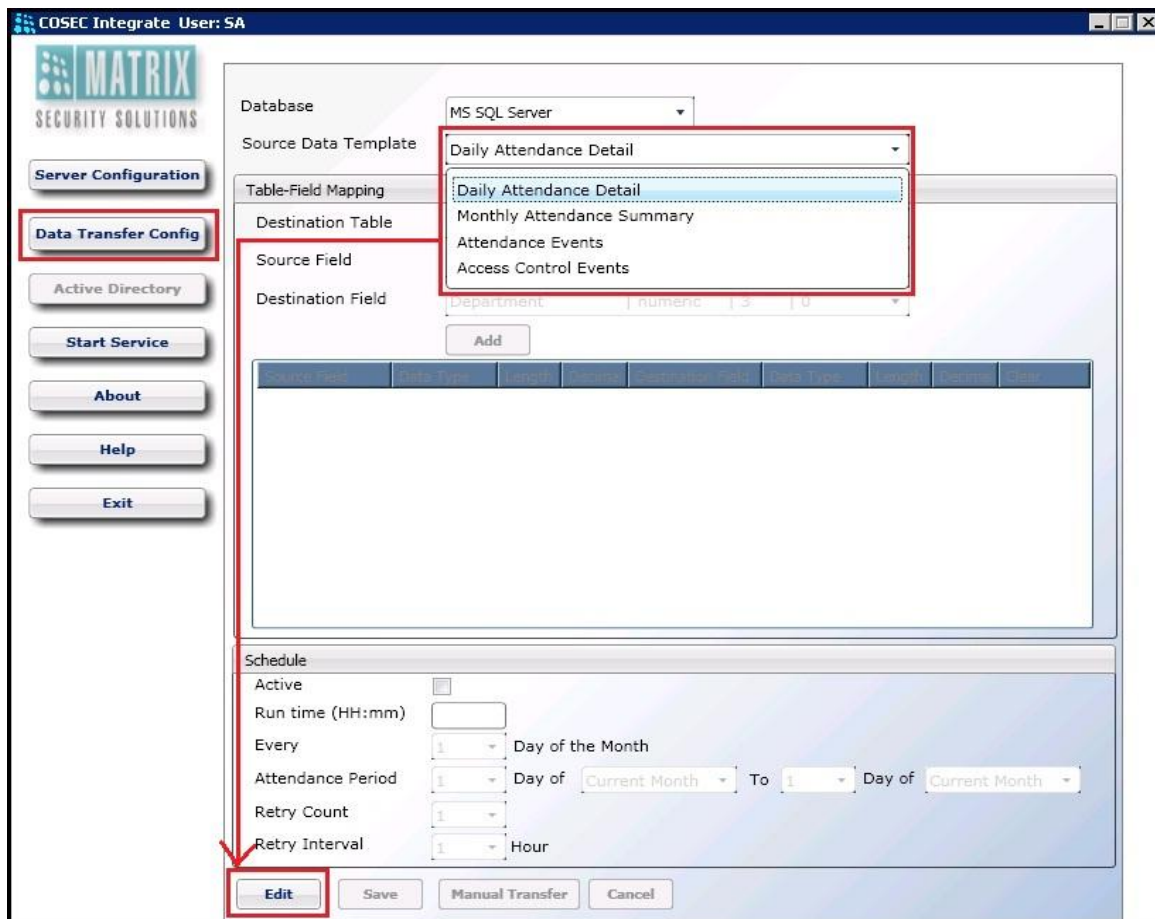
After successful connections, one needs to “save” the settings.

Step 5: After the Server configurations settings, one needs to move to Data transfer configurations, where one can map the source fields with destination fields (provided they have the same data type). Before mapping the field one needs to select “Source Data Template”.

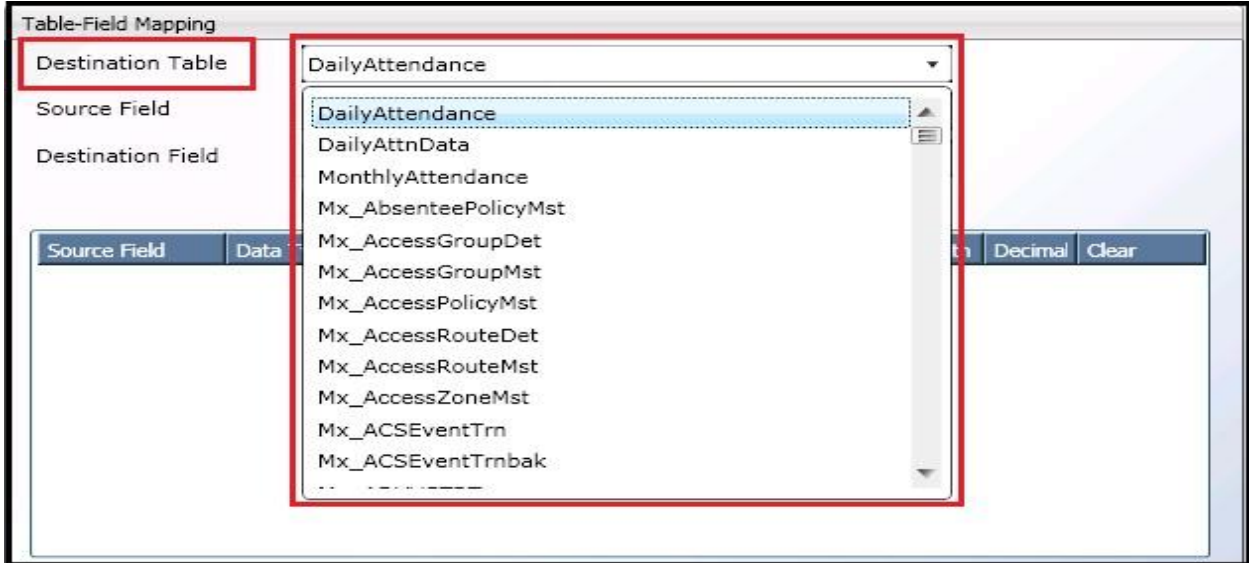
COSEC Software provides various data templates for mapping:

- 1.) Daily Attendance Detail
- 2.) Monthly Attendance Summary
- 3.) Attendance Events
- 4.) Access Control Events

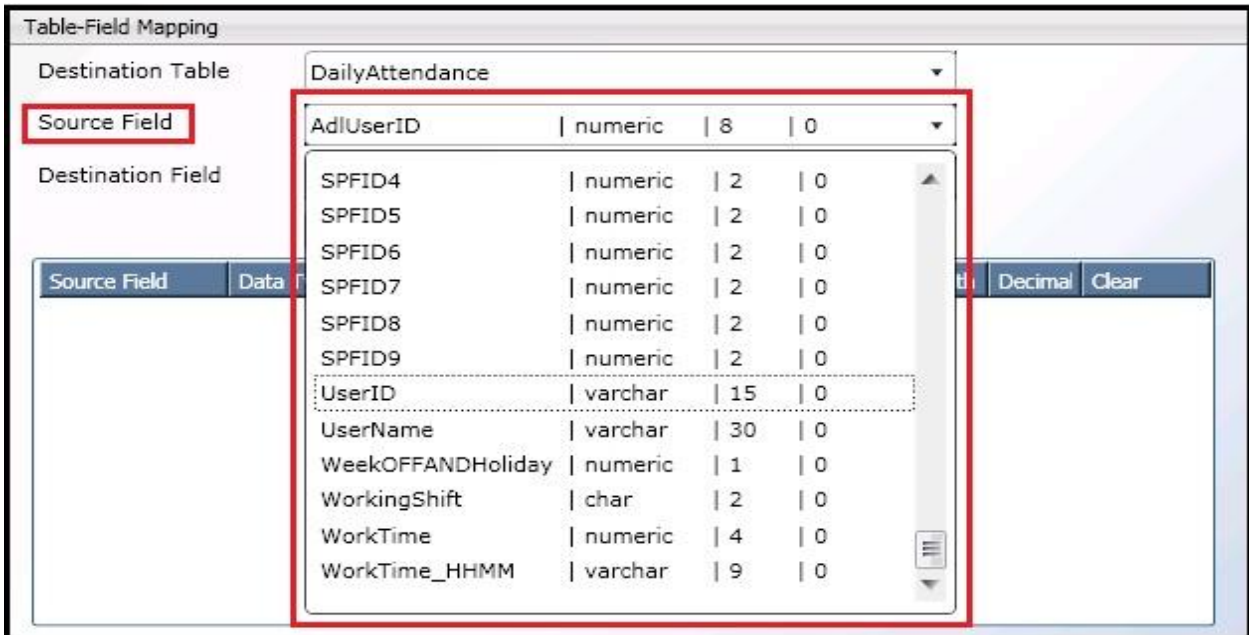
One can select here an appropriate data template for his/her mapping purpose. After selecting any data template, one needs to edit the page for Table-Field Mapping.



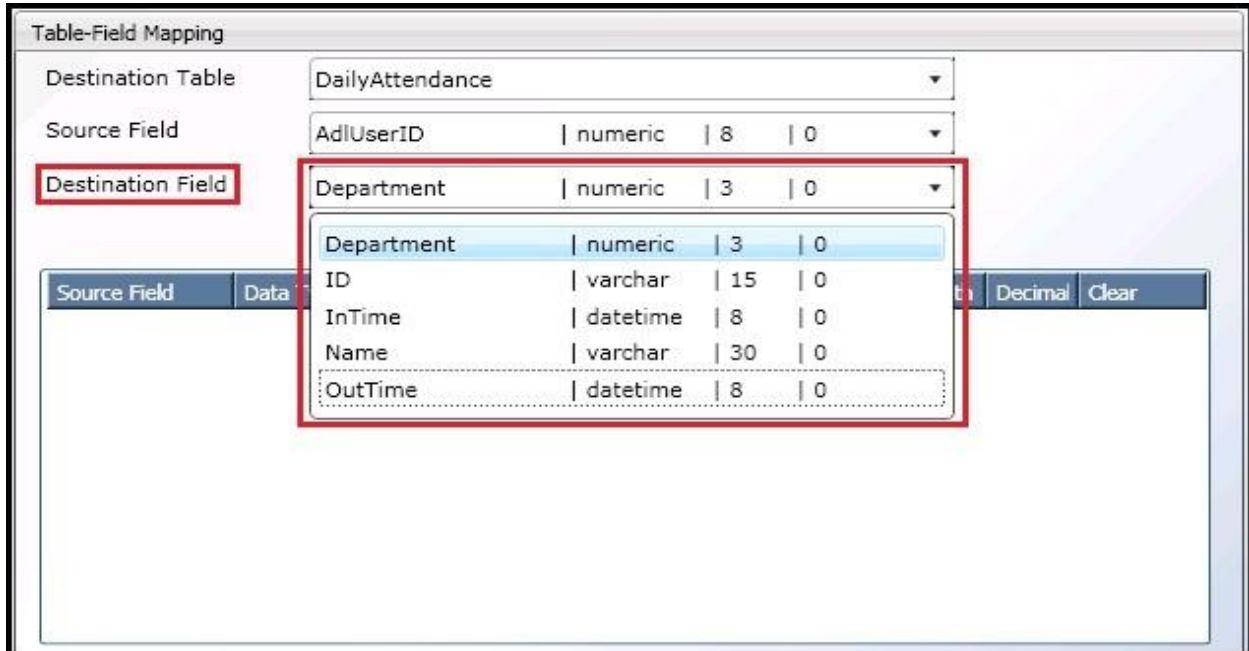
Step 6: Now one needs to select the Destination Table.



Step 7: After selecting destination table, one needs to select Source Field. One can find various source fields according to the Data template selected.



Step 8: And after Source field selection, Appropriate Destination field should be selected where the data is to be mapped.



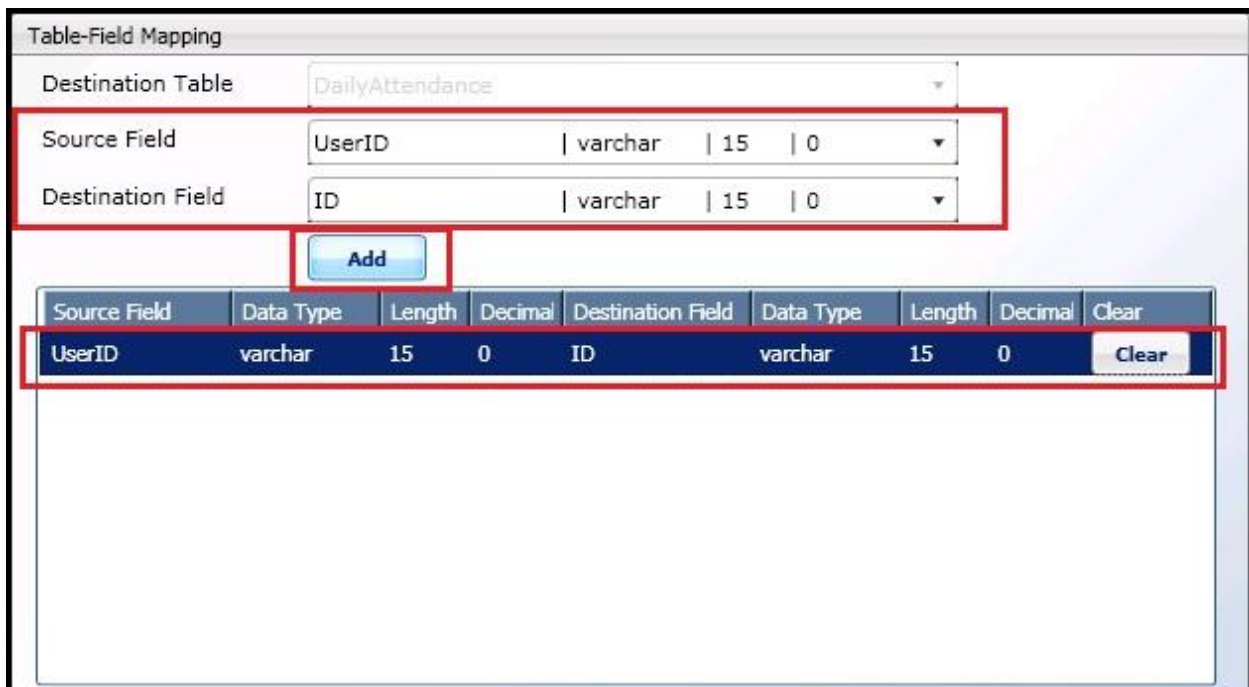
The screenshot shows the 'Table-Field Mapping' dialog with the following configuration:

- Destination Table: DailyAttendance
- Source Field: AdUserID | numeric | 8 | 0
- Destination Field: Department | numeric | 3 | 0

A dropdown menu is open for the Destination Field, showing the following options:

Department	numeric	3	0
ID	varchar	15	0
InTime	datetime	8	0
Name	varchar	30	0
OutTime	datetime	8	0

Step 9: After the selection of appropriate combination of Source and Destination field, one simply needs to add it.



The screenshot shows the 'Table-Field Mapping' dialog with the following configuration:

- Destination Table: DailyAttendance
- Source Field: UserID | varchar | 15 | 0
- Destination Field: ID | varchar | 15 | 0

The 'Add' button is highlighted, and the mapping is shown in the table below:

Source Field	Data Type	Length	Decimal	Destination Field	Data Type	Length	Decimal	Clear
UserID	varchar	15	0	ID	varchar	15	0	Clear

Similarly one can add/clear each and every field.

Table-Field Mapping

Destination Table:

Source Field:

Destination Field:

Source Field	Data Type	Length	Decimal	Destination Field	Data Type	Length	Decimal	Clear
UserID	varchar	15	0	ID	varchar	15	0	<input type="button" value="Clear"/>
UserName	varchar	30	0	Name	varchar	30	0	<input type="button" value="Clear"/>
DPTID	numeric	3	0	Department	numeric	3	0	<input type="button" value="Clear"/>
OutPunch	datetime	8	0	OutTime	datetime	8	0	<input type="button" value="Clear"/>
ProcessDate_D	datetime	8	0	InTime	datetime	8	0	<input type="button" value="Clear"/>

Step 10: After mapping the fields, one needs to “save” the page. There are two options for transferring the data from Source to Destination table.

- Manual Transfer
- Automatic Transfer (Scheduler)

→**Manual transfer:** After saving the page, one can find the option of Manual transfer, in which one needs to provide the start date and the end date of the data to be transferred. After that one needs to process the data.

The screenshot displays the 'COSEC Integrate' application interface. The main window shows a 'Table-Field Mapping' section with the following details:

- Database: MS SQL Server
- Source Data Template: Daily Attendance Detail
- Destination Table: DailyAttendance
- Source Field: ProcessDate_D (datetime, 8, 0)
- Destination Field: InTime (datetime, 8, 0)

A 'Manual Transfer MS SQL Server' dialog box is overlaid, showing the following configuration:

- Start Date: 10/02/2010
- End Date: 10/05/2012
- Buttons: Process, Cancel

The 'Schedule' tab is also visible, with the following settings:

- Active:
- Run time (HH:mm):
- Every: 1 Day of the Month
- Attendance Period: 1 Day of Current M
- Retry Count: 1
- Retry Interval: Hour
- Buttons: Edit, Save, Manual Transfer, Cancel

A progress bar and 'Process' button are shown in a separate dialog box at the bottom right, indicating the transfer of data.

→ **Automatic Transfer (Schedule):** In Schedule Tab (Before saving the configurations), one needs to activate the scheduler and provide the time specification for running the scheduler.

Table-Field Mapping

Destination Table:

Source Field: | datatype | 8 | 0

Destination Field: | datatype | 8 | 0

Source Field	Data Type	Length	Decimal	Destination Field	Data Type	Length	Decimal	Clear
UserID	varchar	15	0	ID	varchar	15	0	<input type="button" value="Clear"/>
UserName	varchar	30	0	Name	varchar	30	0	<input type="button" value="Clear"/>
DPTID	numeric	3	0	Department	numeric	3	0	<input type="button" value="Clear"/>
OutPunch	datetime	8	0	OutTime	datetime	8	0	<input type="button" value="Clear"/>
ProcessDate_D	datetime	8	0	InTime	datetime	8	0	<input type="button" value="Clear"/>

Schedule

Active:

Run time (HH:mm):

Every: Day of the Month

Attendance Period: Day of To Day of

Retry Count:

Retry Interval: Hour

If one needs to transfer the real time events, then he can configure the Data Template as Attendance Events and can schedule the “Update Time” after which the data will keep on updating itself with the new data (if any).

Schedule

Active

Update Interval Seconds

Start Date

Final Step: After successful configurations, one needs to start the service for its operation.

Server Configuration

Data Transfer Config

Active Directory

Start Service

About

Help

Exit

Table-Field Mapping

Destination Table: DailyAttendance

Source Field: ProcessDate_D | datetime | 8 | 0

Destination Field: InTime | datetime | 8 | 0

Source Field	Data Type	Length	Decimal	Destination Field	Data Type	Length	Decimal	Clear
UserID	varchar	15	0	ID	varchar	15	0	<input type="button" value="Clear"/>
UserName	varchar	30	0	Name	varchar	30	0	<input type="button" value="Clear"/>
DPTID	nu				numeric	3	0	<input type="button" value="Clear"/>
OutPunch	da				datetime	8	0	<input type="button" value="Clear"/>
ProcessDate_D	datetime	8	0	InTime	datetime	8	0	<input type="button" value="Clear"/>

Please Wait....

Schedule

Active

Run time (HH:mm)

Every Day of the Month

Attendance Period Day of To Day of

Retry Count

Retry Interval Hour

Functioning of COSEC Integrate:

COSEC Integrate pulls out the data through COSEC Web API from COSEC database and pushes into the destination Database Table at the scheduled time and scheduled interval.

Thanks & Regards,

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